

ABSTRACT

The present invention provides improved oculomotor testing devices and pain tolerance testing devices. Certain oculomotor testing devices test parameters including response time, reaction time, and movement time, as well as precision. The devices are adapted for ambulatory as well as semi-ambulatory and non-ambulatory individuals. Methods of using the devices are provided wherein a visual stimulus is provided and the individual is instructed to perform a movement specific to that visual stimulus. Preferably, the device records the movement done in response to the visual stimulus and, with the aid of a computing device, factors out errors and measures the desired parameter. One embodiment of the present invention permits a user to observe a real-time visual feedback of the force exerted on a load cell. The individual can increase or decrease the amount of force exerted in response to the display of force on a visual feedback exhibitor. Such a device can measure the pain tolerance of an individual by correlating the length of time the individual can maintain a certain exerted force on the load cell with their tolerance for pain.

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